Title (en)

BIODEGRADABLE POLYHYDROXYALKANOATE COPOLYMERS HAVING IMPROVED CRYSTALLIZATION PROPERTIES

Title (de)

BIOABBAUBARE POLYHYDROXYALKANOAT-COPOLYMERE MIT VERBESSERTEN KRISTALLISATIONSEIGENSCHAFTEN

Title (fr)

COPOLYMERES DE POLYHYDROXYALCANOATE BIODEGRADABLES POSSEDANT DES PROPRIETES DE CRISTALLISATION AMELIOREES

Publication

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Application

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Priority

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Abstract (en)

[origin: WO02055581A2] Compositions having improved crystallization properties and physical properties comprise (a) a continuous phase of first biodegradable polyhydroxyalkanoate comprising a copolymer, or a blend thereof, of at least two randomly repeating monomer units (RRMU), wherein the first RRMU has the structure (I): (I) wherein R<1> is H, or C1 or C2 alkyl, and n is 1 or 2; and the second RRMU is different from the first RRMU and comprises at least one monomer selected from the group consisting of the structures (II) and (III): (II) wherein R<2> is a C3-C19 alkyl or C3-C19 alkenyl, and (III) wherein m is from 2 to about 16, and wherein the copolymer has a melting point Tm1, and (b) a second crystallizable biodegradable polyhydroxyalkanoate homopolymer or copolymer, which comprises at least one randomly repeating monomer unit having the structure (IV): (IV) wherein R<3> is H, or C1 or C2 alkyl, and p is 1 or 2, and further wherein the second biodegradable polyhydroxyalkanoate has a melting point Tm2, wherein Tm2 is at least about 20 DEG C greater than Tm1. The compositions are formed by solution or melt blending of the components (a) and (b) and may be formed into shaped articles.

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